

REMARKS

Claims 1-11, 23-37, 39, and 40 are pending and stand rejected. Claims 2, 12-22, 25, and 38 have been previously cancelled. Claims 1, 3-7, 10, 23-24, 30-37, and 39-40 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,280,527 to Gullman (“the Gullman patent”) in view of U.S. Patent No. 5,280,527 to Dams (“the Dams patent”). Claims 26-29 were rejected under 35 U.S.C. §103(a) as being unpatentable over Gullman in view of U.S. Patent No. 6,356,868 to Yuschik (“the Yuschik patent”) and further in view of U.S. Patent No. 6,161,005 to Pinzon (“the Pinzon patent”). Claims 1, 3-11, 23-37 and 39-40 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Published Application 2003/0018478 to Mays (“the Mays application”) in view of Dams and further in view of Gullman. The rejections as they may apply to the claims presented herein are respectfully traversed.

Amended claim 1 recites a security control apparatus. The security control apparatus includes a security device and a control apparatus. The control apparatus is responsive to security codes for enabling and disabling the security device. The security control apparatus also includes a security code source unit that communicates security codes to the control apparatus. The security code source unit has a user controlled keypad and a voice analysis apparatus and includes circuitry responsive to the voice analysis apparatus for generating and communicating to the control apparatus a security code including a portion representing user interaction with the security code source unit. The voice analysis apparatus includes a speaker dependent voice analysis arrangement for analyzing a first received voice signal and a speaker independent voice analysis arrangement for analyzing a second received voice signal. The speaker independent voice analysis arrangement is activated to analyze the second received voice signal when the speaker dependent voice arrangement fails to identify the first received voice signal.

In contrast, the Gullman and Pinzon references do not teach the use of speaker dependent or speaker independent voice analysis technology. Consequently, they do not teach a dependent speaker module analyzing a first voice signal and an independent speaker module analyzing a second voice signal as recited in claim 1.

Mays teaches a system in which “a speech activation unit 53 may be programmed to recognize a predetermined number of words in a speaker dependent *or* speaker independent mode.” Mays, paragraph 20. Consequently, Mays does not teach or suggest a dependent speaker module analyzing a first voice signal and then an independent speaker module analyzing a second voice signal when identification of the first voice signal fails as recited in claim 1.

The Yuschik reference teaches the use of speaker dependent (SD) and speaker independent (SI) voice analysis technologies. Yuschik, col. 2, lines 27-36. It can also be seen in FIG. 1 of Yuschik that the speaker-independent speech processor 108 and the speaker dependent processor 110 are operated simultaneously, in parallel. In other words, Yuschik does not teach or suggest a dependent speaker module analyzing a first voice signal and an independent speaker module analyzing a second voice signal when identification of the first voice signal fails as recited in claim 1.

Dams teaches a system whereby a speech recognition system can recognize seven utterances (three names and four commands) See Dams, col. 3, lines 53-67. As shown in the flowchart of FIG. 3 of Dams, a call is received at step 52. The system may go to speaker dependent mode at step 54 and, at step 56, attempts to recognize the speech in speaker dependent mode. If this attempt is unsuccessful, speaker independent mode is entered at step 66 and an attempt is made to recognize the same speech. In other words, Dams does not teach or suggest a dependent speaker module analyzing a *first* voice signal and an independent speaker module analyzing a *second (and different)* voice signal when identification of the first voice signal fails as recited in claim 1.

Since an element of claim 1 is missing from all of the cited references, it is submitted that claim 1 is allowable over the proposed combination of Gullman and Dams and the proposed combination of Mays, Dams, and Gullman. Independent claims 7, 26, 30, and 40 have been amended in a manner similar to claim 1 and are believed to be allowable for the same reasons as claim 1. Claims 3-6, 8-11, 27-29, 31-37, and 39 depend directly or indirectly upon the independent claims. Since the independent claims are allowable, it is believed that these dependent claims are also allowable.

Amended claim 23 recites a barrier control apparatus that is responsive to barrier control commands for moving a barrier. Control circuitry is responsive to user interaction and generates barrier control commands to control barrier movement. User interaction includes security approval before the generation of barrier control commands. The control circuitry includes a speaker dependent voice analysis arrangement for analyzing first words and a speaker independent voice analysis arrangement for analyzing second words and for granting security approval. The speaker independent voice analysis arrangement is activated when the speaker dependent voice arrangement fails to grant security approval based upon analyzing the first words. In addition, a voice analysis arrangement is responsive without security approval to at least one predetermined word spoken by a user for generating barrier control commands to change the movement of a barrier.

In contrast and as mentioned above, none of the cited references teach or suggest dependent voice analysis arrangement for analyzing first words and a speaker independent voice analysis arrangement for analyzing second words as recited in claim 23. In addition there is no teaching in any of the references (and none specifically pointed to by the Examiner) where a voice analysis arrangement is responsive without security approval to at least one predetermined word spoken by a user for generating barrier control commands to change the movement of a barrier also as recited in claim 23. Consequently, it is submitted that claim 23 is allowable over either of the proposed combinations.

Claim 24 depends upon claim 23 and recites that the control circuitry enables the voice analysis arrangement for a predetermined period of time after the generation of a barrier control command to respond without security approval to the at least one spoken word to stop a closing barrier. In rejecting the claim over the proposed Gullman, Yuschik, and Pinzon combination, the Examiner admitted that none of the references in the proposed combination taught that the speaker independent voice apparatus is enabled for a predetermined time as recited in claim 24. However, the Office Action stated it would have been obvious to modify the proposed combination so as to program the control apparatus 10 of Gullman as claimed because "it saves energy as compared to being enabled all the time." The Applicants respectfully disagree with this assertion for the reasons stated below.

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The Applicants' claimed system addresses security concerns and is not necessarily designed to achieve energy savings. Specifically, the Applicants' claimed system ensures that after a barrier is closed, a non-sanctioned person can not use the speaker-independent apparatus to open the barrier. Moreover, the energy savings achieved by selective enablement would be minimal since relatively little energy is needed to maintain constant enablement of the system. Because there is no motivation to modify the proposed combination as suggested by the Office Action in order to achieve energy savings, it is submitted that the proposed modification is non-obvious and that claim 24 is allowable over the proposed combination. In addition, since claim 24 depends upon claim 23, claim 24 is allowable for the same reasons as claim 23.

The Commissioner is hereby authorized to charge any additional fees which may be required in this application under 37 C.F.R. §§1.16-1.17 during its entire pendency, or credit any overpayment, to Deposit Account No. 06-1135. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 06-1135.

Respectfully submitted,

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